

IR Business Briefing Communications Solutions business

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Forward-Looking Statements

Projections of future sales and earnings in these materials are “forward-looking statements.”

Management offers these projections in good faith and on the basis of information presently available.

Information in these statements reflects assumptions about such variables as economic trends and currency exchange rates.

Forward-looking statements incorporate known and unknown risks as well as other uncertainties that include, but are not limited to, the following items.

- Economic trends in the U.S., Europe, Japan and elsewhere in Asia, particularly with regard to consumer spending and corporate expenditures.
- Changes in exchange rates of the U.S. dollar, euro, and Asian currencies.
- The Furukawa Electric Group’s ability to respond to rapid advances in technology.
- Changes in assumptions involving financial and managerial matters and the operating environment.
- Current and future trade restrictions and related matters in foreign countries.
- Changes in the market value of securities held by the Furukawa Electric Group.

Due to the above factors, actual sales, earnings, and other operating results may differ significantly from Looking Statements in these materials. In addition, following the release of these materials, Furukawa Electric Group assumes no obligation to announce any revisions to forward-looking statement in these materials

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Furukawa Electric Co., Ltd

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Communications Solutions Division

Optical Fiber & Cable Products Division

FITEL Products Division

Broadband Solutions Business Division

Global affiliated companies

OFS

FEL

Okano Densen

BTC

Shodensya

TFOC

Seiwa Giken

FOSI

Furukawa Fitel Optical device

FFT

FFOS

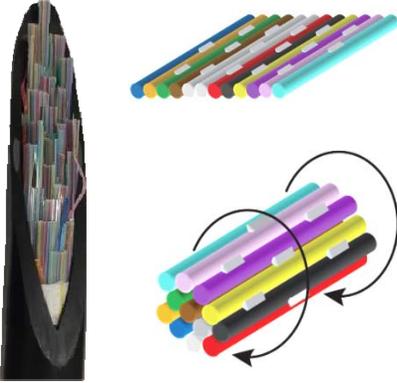
Miharu

TFU

Furukawa C&B

Furukawa Network Solution

Key products, Usage and Customer segments

Business	Key Products	Usage (Feature)	Main customer segment	Main market
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Optical Fiber & Cable Products</p>	<ul style="list-style-type: none"> • Submarine cable, low loss fiber for long-Haul • Bend Optimized fiber for FTTx/FTTH. 	<ul style="list-style-type: none"> • Communication services • Video transmission • Data center 	<ul style="list-style-type: none"> • Communication Carrier • CATV business companies • OTT 	<ul style="list-style-type: none"> • Europe & U.S • South-America, • South-east Asia
	<ul style="list-style-type: none"> • Rollable Ribbon Cables 	<ul style="list-style-type: none"> • Communication services • Video transmission • Data center 	<ul style="list-style-type: none"> • Communication Carrier • CATV business companies • OTT 	<ul style="list-style-type: none"> • Japan • North-America

Key products, Usage and Customer segments

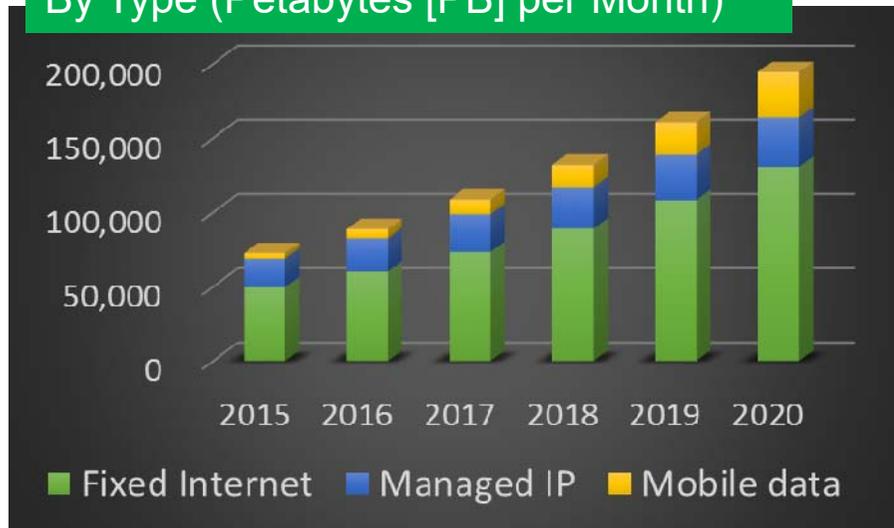
Business	Key Products	Usage (Feature)	Main customer segment	Main market
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">FITEL Products</p>	<ul style="list-style-type: none"> •ITLA: Integrated tunable laser assembly 	<ul style="list-style-type: none"> •Laser module for Digital Coherent 	<ul style="list-style-type: none"> • System vendor • Transmission equipment supplier 	<ul style="list-style-type: none"> • North America • China
	<ul style="list-style-type: none"> •Optical fiber Splicer 	<ul style="list-style-type: none"> • Telecommunication construction -Great operability -Miniaturization -Lower price • Optical device factory -High function -High quality 	<ul style="list-style-type: none"> • Telecommunication construction company • Optical device company • R&D center -Line up for all splicing environment 	<ul style="list-style-type: none"> • Japan • Europe & U.S. • China • South-East Asia

Key products, Usage and Customer segments

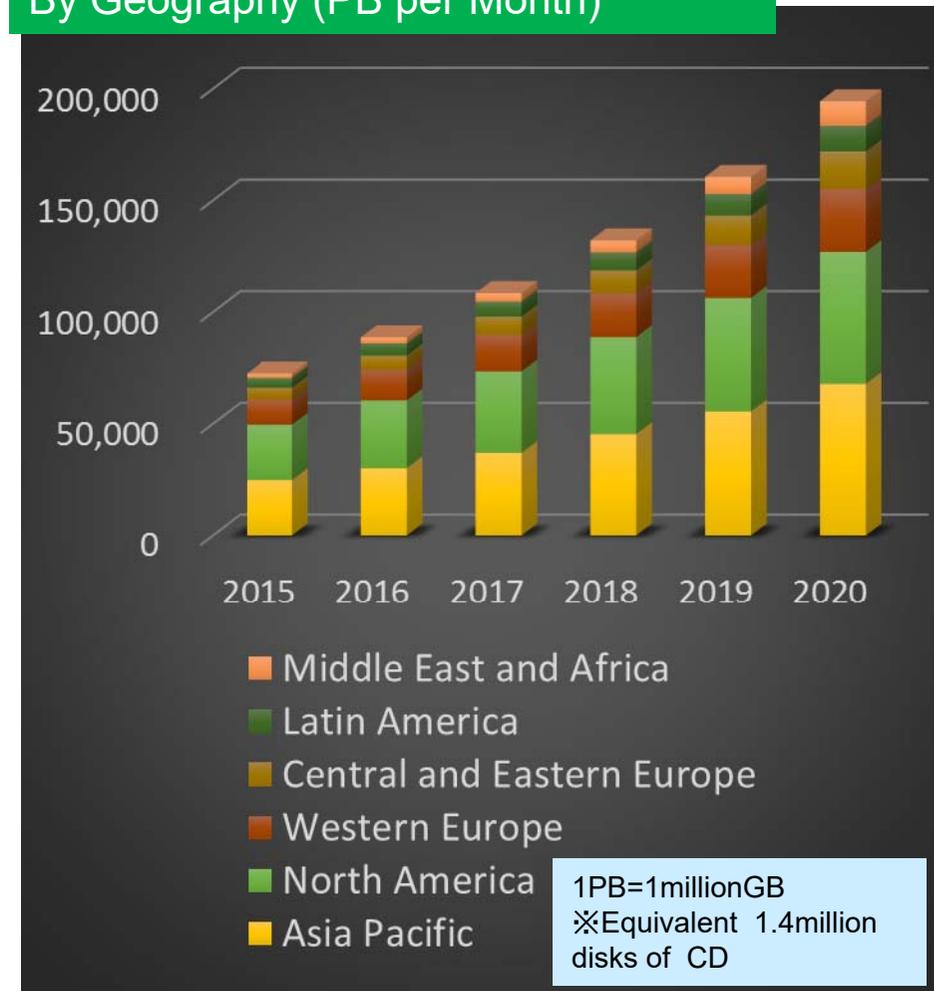
Business	Key Products	Usage (Feature)	Main customer segment	Main market	
Broadband Solutions Business	<ul style="list-style-type: none"> • FTTH System equipment 	<ul style="list-style-type: none"> • Telecommunication services • Broad cast services • Design, construction 	<ul style="list-style-type: none"> • CATV business companies • Municipality • Telecommunication business companies 	Japan	
	<p>2020 Tokyo Olympic</p> <p>➤ Current active demand of F T T H investment CATV business companies turn to high quality BS for 4K,8K -FY2017 MIC subsidy <CATV optical promotion></p>				
	<ul style="list-style-type: none"> • Network looter 	<ul style="list-style-type: none"> • High speed & large capacity telecommunication service • VPN construction 	<ul style="list-style-type: none"> • Telecommunication business companies • Ordinal companies 	Japan	
<ul style="list-style-type: none"> • FBS (Furukawa Broadband System) • FCS (Furukawa Cabling System) • Constructing service 	<ul style="list-style-type: none"> • FTTH equipment Solution • LAN solution • Design, construction 	<ul style="list-style-type: none"> • ISP • Distributor • Ordinal companies 	<ul style="list-style-type: none"> • Latin America • South-East Asia • MEA etc., 		

IP Traffic will continue expanding (2015–2020)

By Type (Petabytes [PB] per Month)



By Geography (PB per Month)



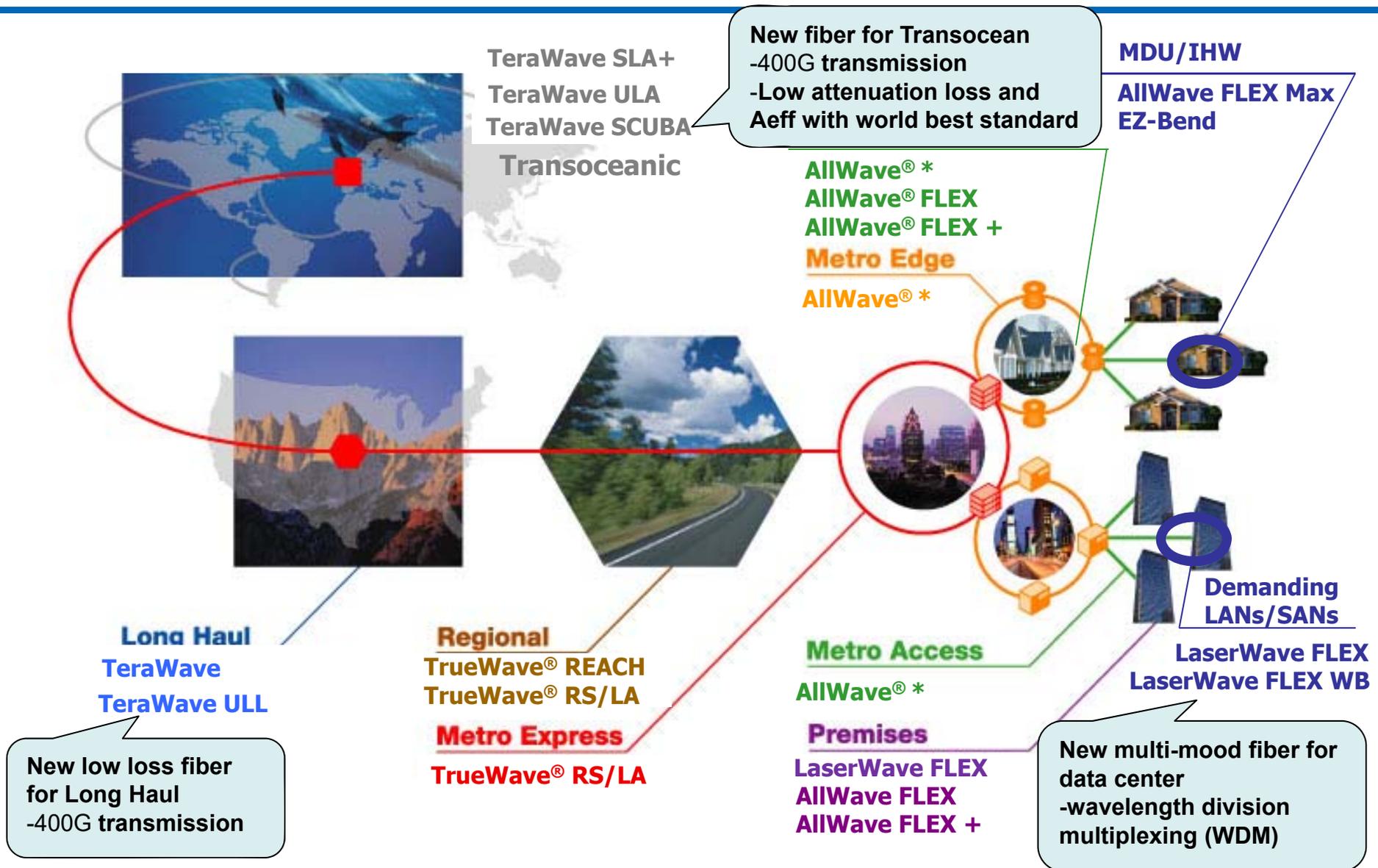
By Segment (PB per Month)



1PB=1millionGB
 ※Equivalent 1.4million disks of CD

The source: Cisco VNI Forecast and Methodology, 2015-2020

Business strategy -Optical fiber line up-



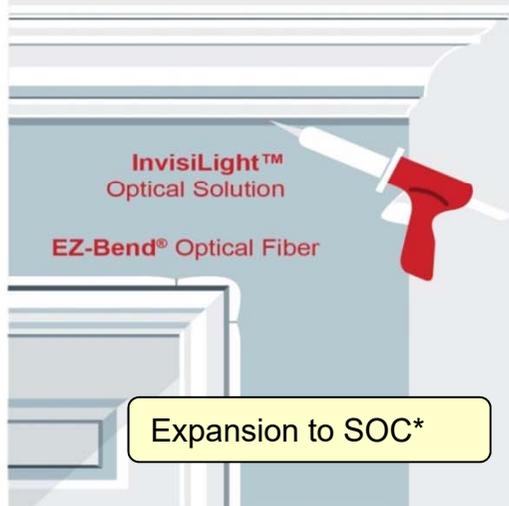
* AllWave® includes AllWave One, AllWave +, AllWave LL and Standard AllWave

Business strategy -Optical fiber development road map-

FTTx/FTTH
Optimized bend performance
High operability



- Excellent macrobend performance
- Easy to install solutions

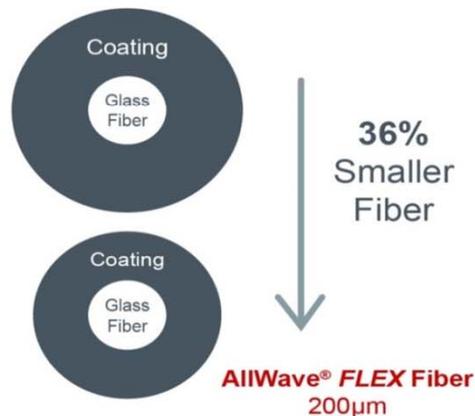


*Splice On Connector

Middle-short haul
High density,
Smaller diameter, Low loss,
Macro bend performance



- High density cable designs favor improved macrobend performance, lower loss and smaller diameter fibers

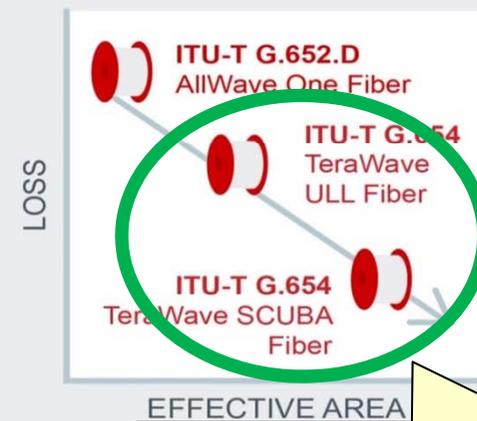


Expansion to ultra high fiber count cable with 200µm

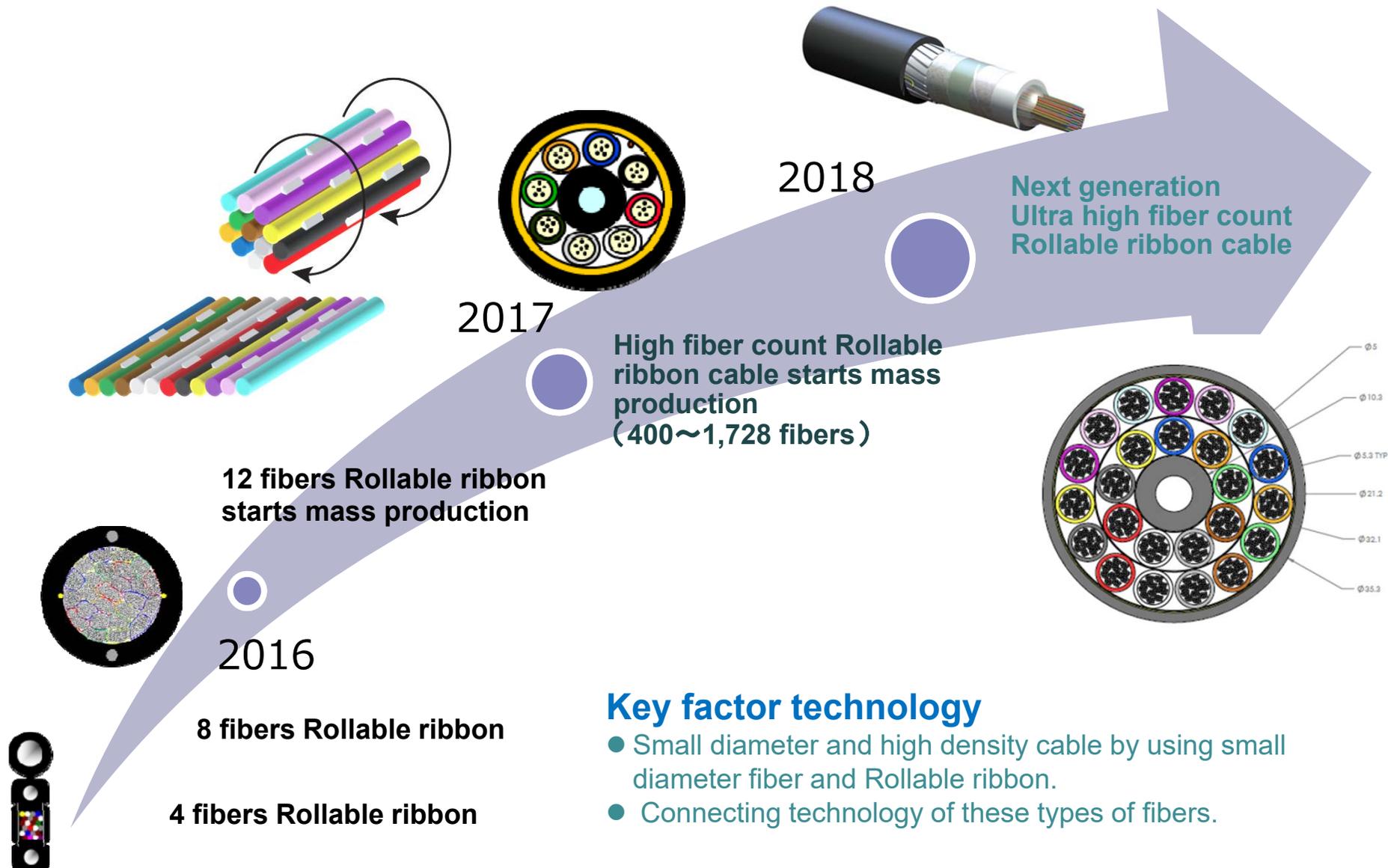
Long haul
Lower loss,
Higher Aeff



- Coherent transmission systems favor lower loss and higher effective area



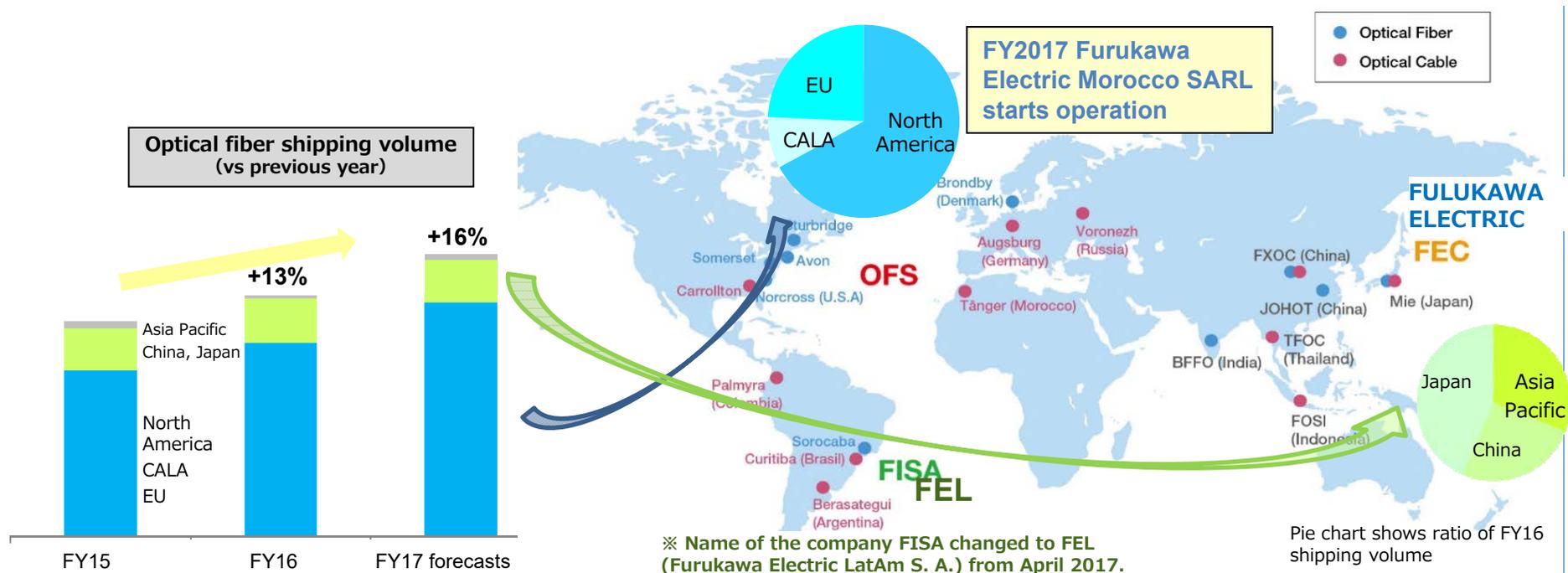
In FY2016, released for land long Haul and Transocean



Strengthen global operations for optical fiber & cable businesses

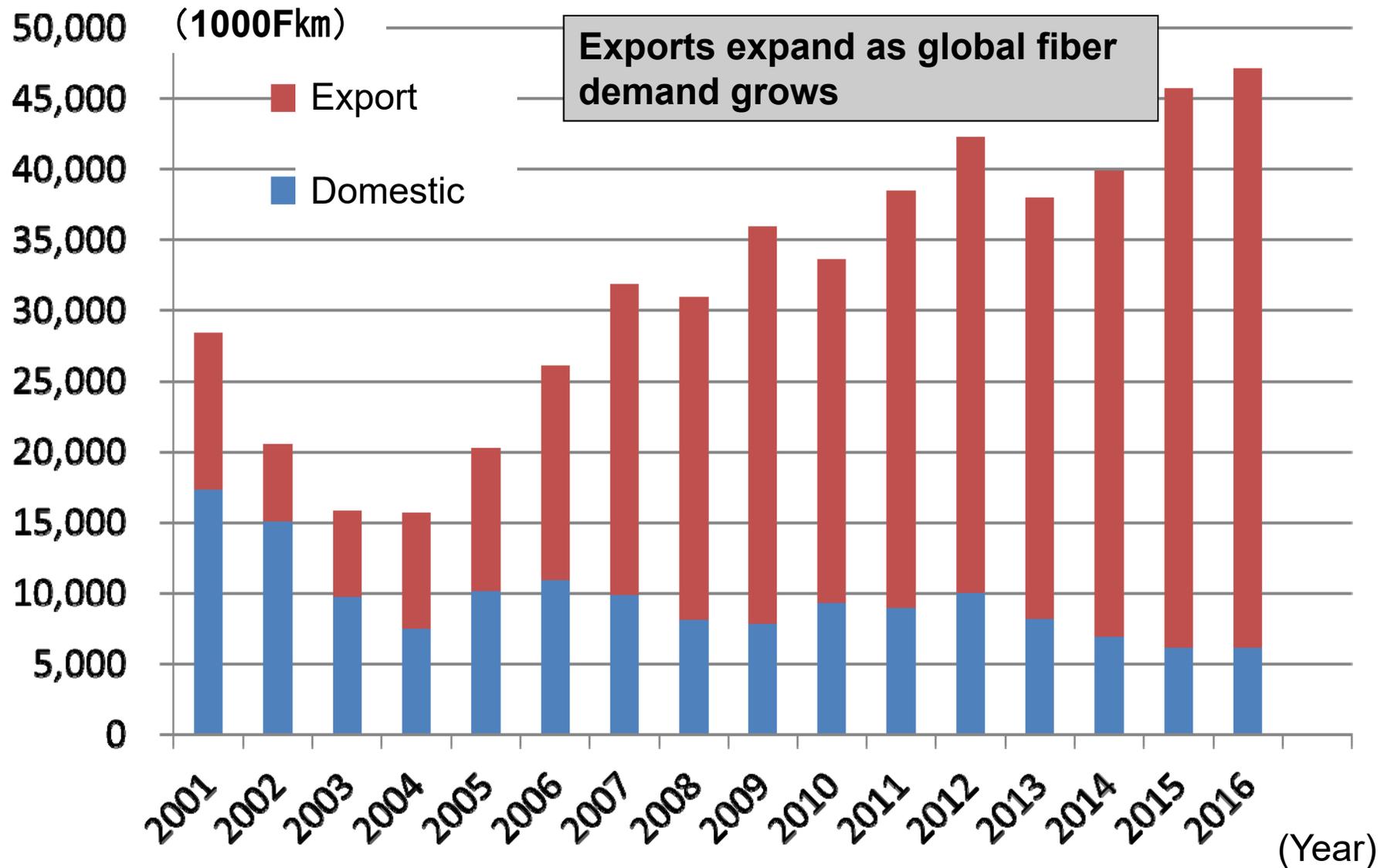
Build a centralized management system within the Group to respond to growing demand and customer requirements

- Establish a global system for centrally managing production and supply allocation for fiber factories in Japan, the U.S., and India based on global strategies
- Respond to regional customer requirements at local cable production bases
- Boost production capacity for optical fibers in line with demand trends
(Capacity increased 20% from early FY2015 to date and will be increased by another 20% by early FY2018)



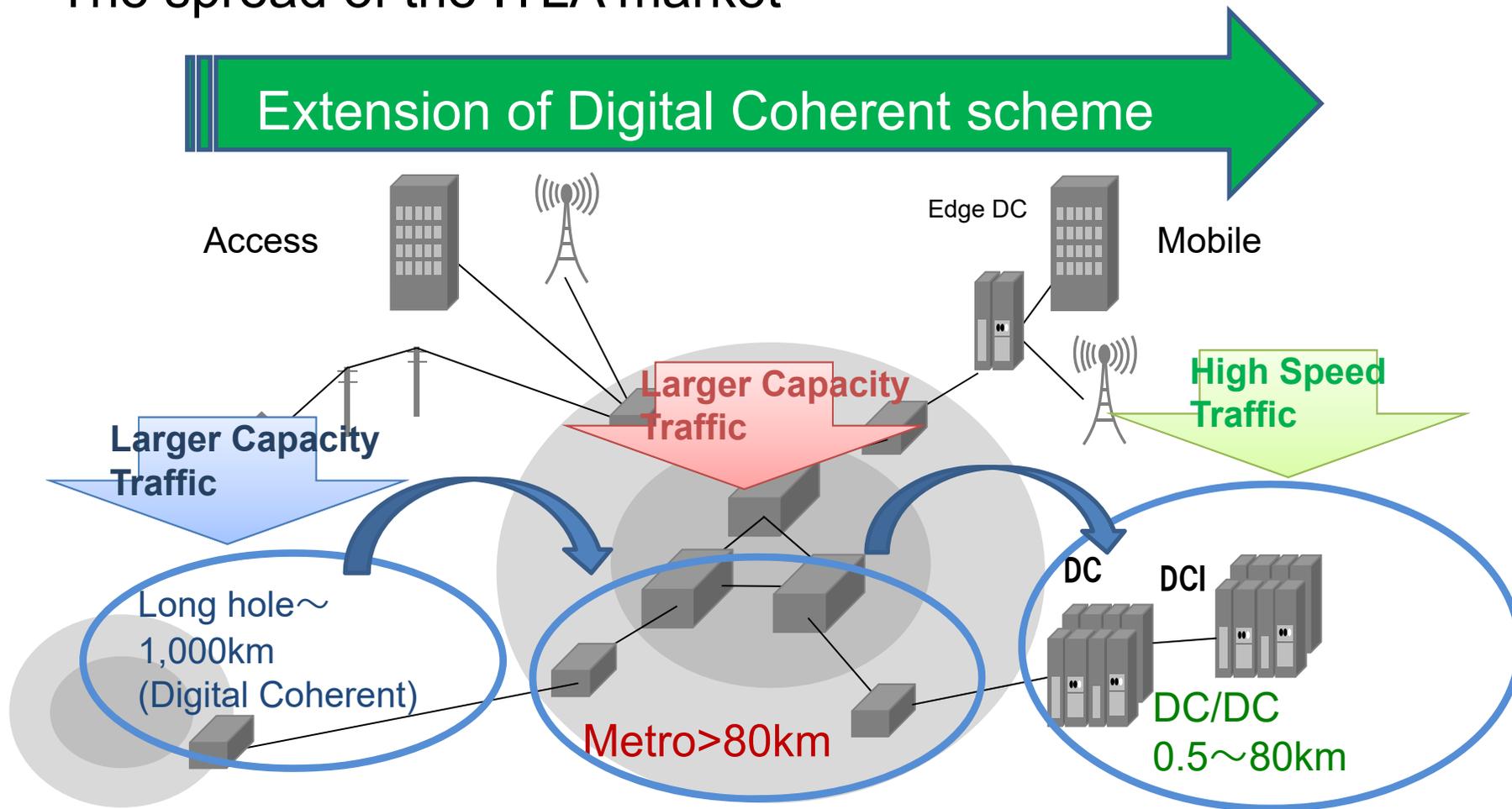
Domestic optical fiber:

Internal and external demand trends



The source: Estimated based on the data of The Japanese Electric Wire & Cable Makers' Association

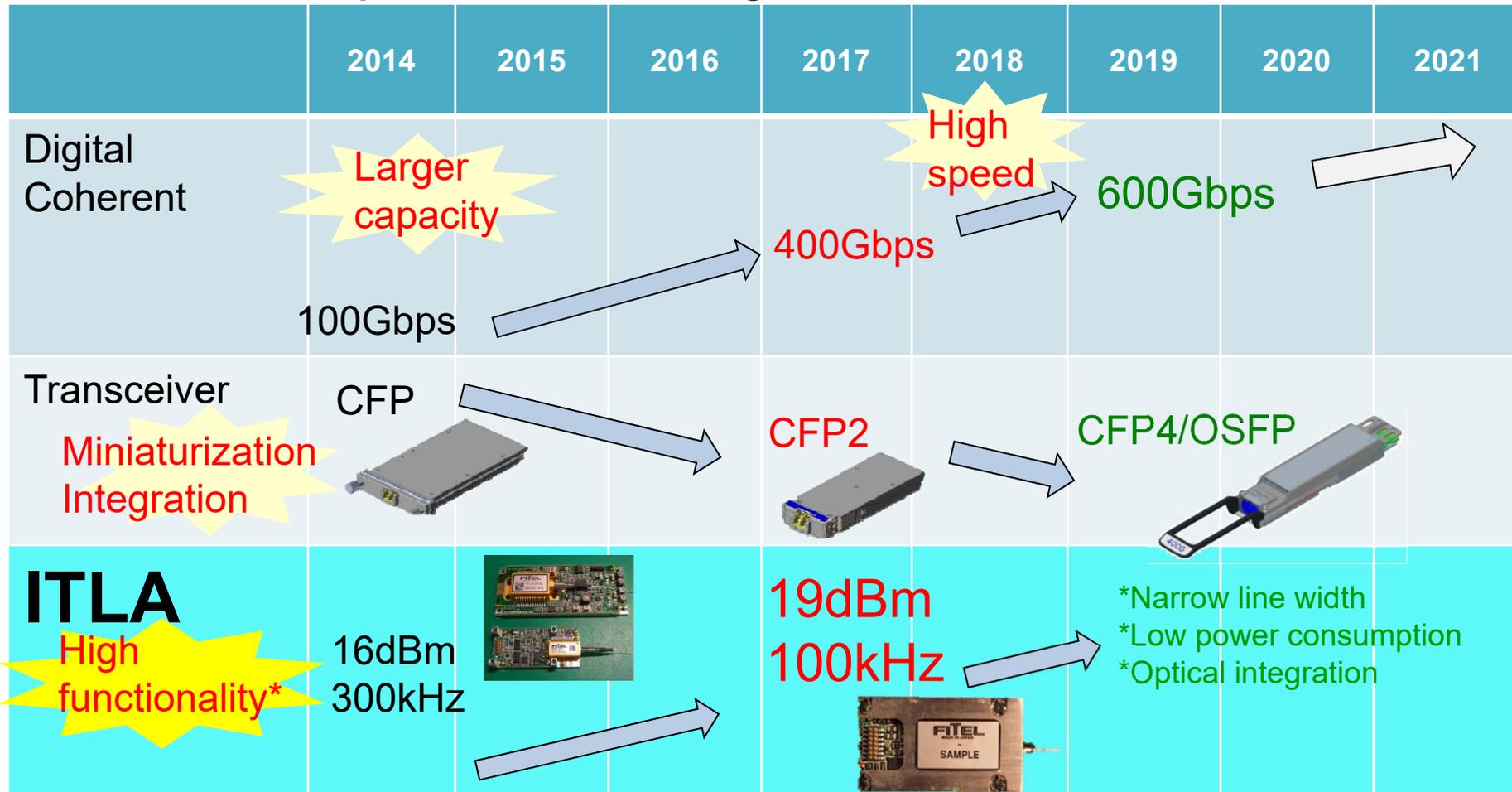
The spread of the ITLA market



In addition to expanding to the metro area accompanying the increase in capacity of Traffic, further market growth can be expected by expanding to DC area due to high speed

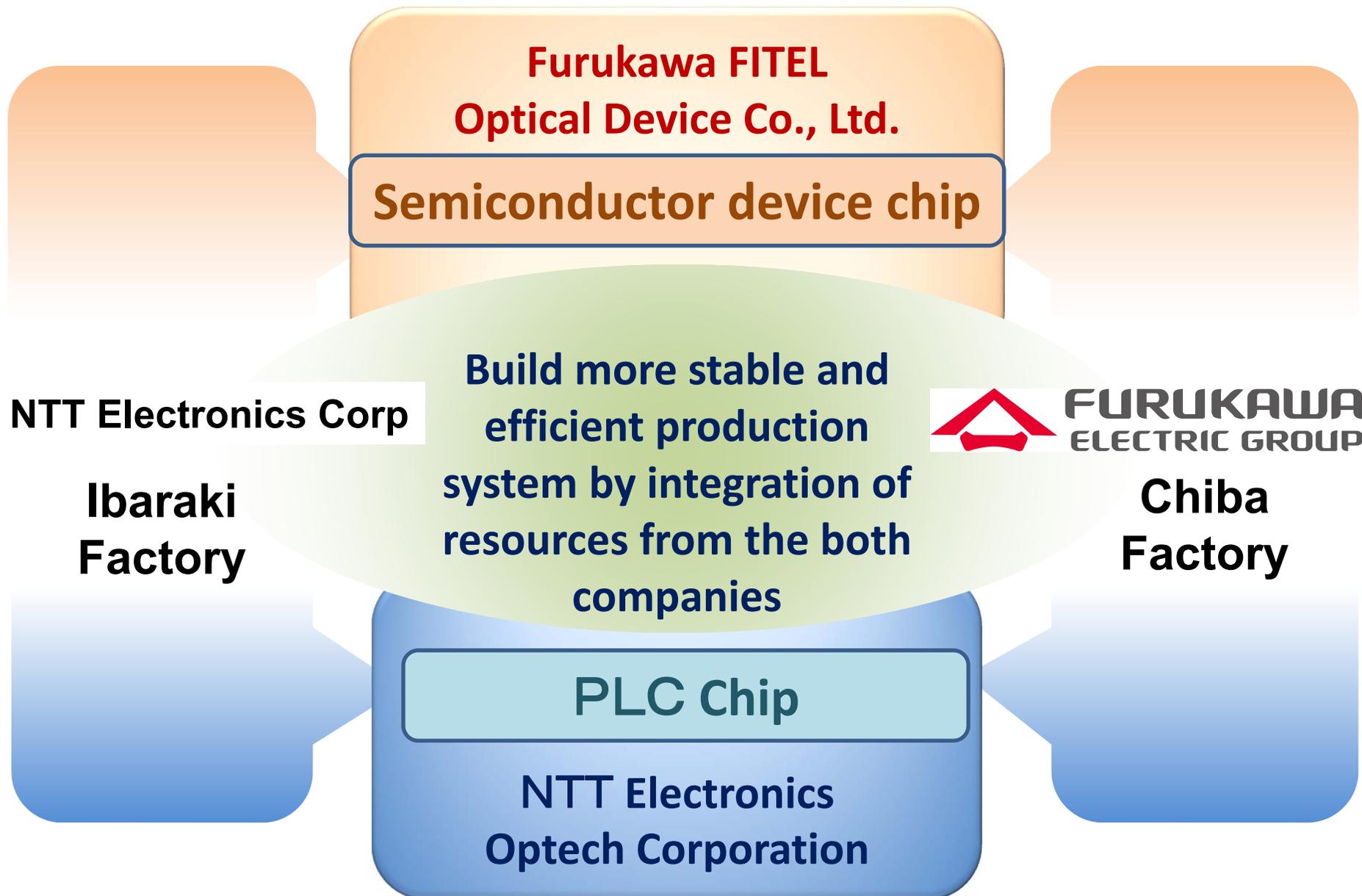
All in-company investigation

ITLA Roadmap and trend of digital coherent

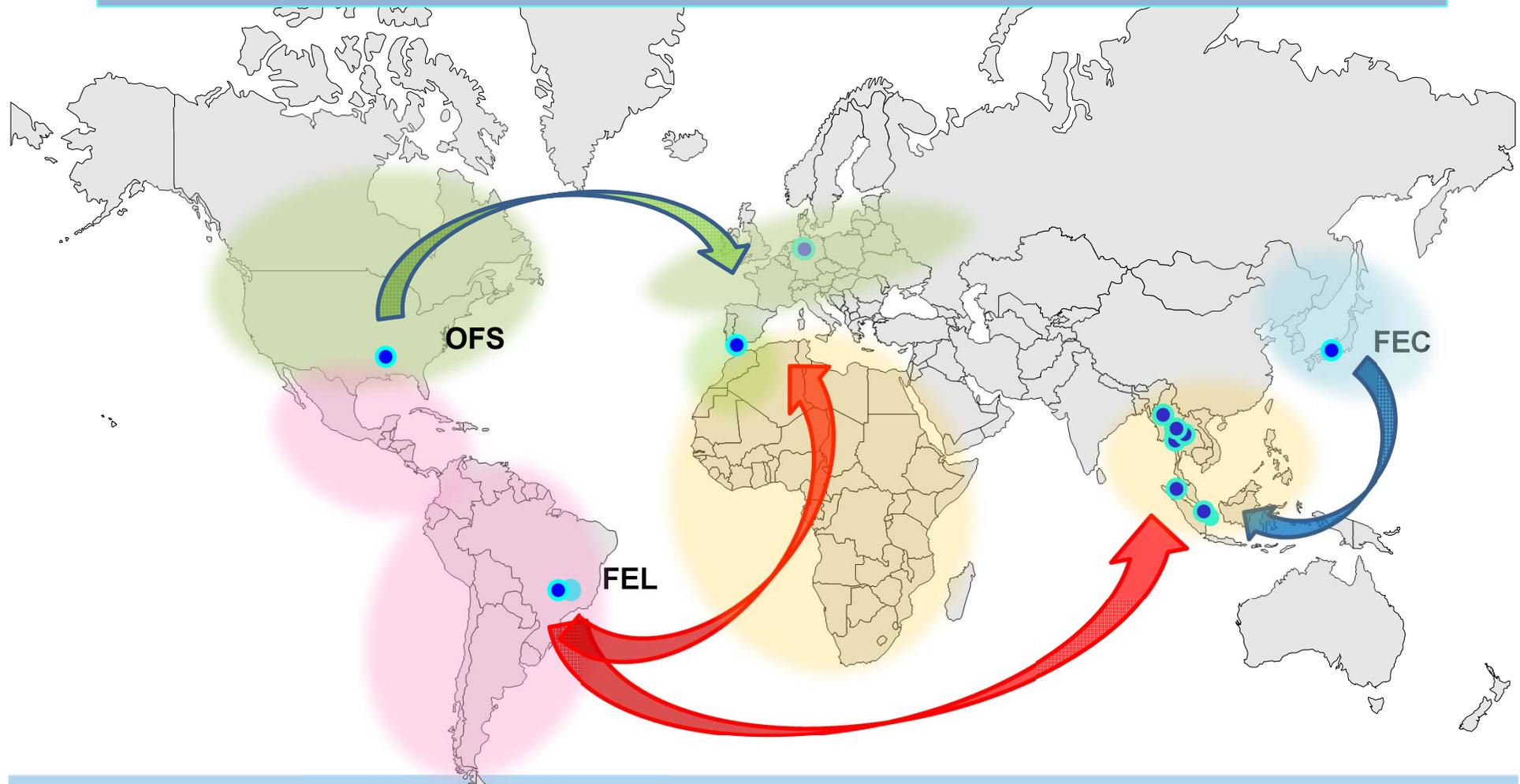


- * High power
- * Narrow line width
- * Low power consumption

All in-company investigation



Currently Solutions business is under development mainly in Latin America, SEA and MEA



Communications Solutions

Sales & Operating income

(Unit : JPY billion yen)

	FY2016	FY2017	
			YOY
Sales	168.5	175.0	104%
Operating income	14.2	14.3	101%
Operating margin	8.4%	8.2%	▲0.2%

FY 2017 □: Factors for increase ■ Factors for decrease

□ Product mix and price levels improved in addition to increased demand for optical fiber mainly in North America

□ Demand for digital coherent related products also remaining strong

■ Capital / R&D investments for optical fiber and digital coherent-related products will increase

■ JPY exchange rate will affect sales and operating income

Thank you very much
for your attention.

